

Borehole

50-10-05Log Event **A****Borehole Information**

Farm : <u>T</u>	Tank : <u>T-110</u>	Site Number : <u>299-W10-135</u>
N-Coord : <u>43,305</u>	W-Coord : <u>75,618</u>	TOC Elevation : <u>673.84</u>
Water Level, ft : <u>82.90</u>	Date Drilled : <u>2/28/1974</u>	

Casing Record**Equipment Information**

Logging System : <u>2</u>	Detector Type : <u>HPGe</u>	Detector Efficiency: <u>35.0 %</u>
Calibration Date : <u>03/1995</u>	Calibration Reference : <u>GJPO-HAN-1</u>	

Logging Information

Log Run Number : <u>1</u>	Log Run Date : <u>4/11/1995</u>	Logging Engineer: <u>Dave Traub</u>
Start Depth, ft.: <u>92.0</u>	Counting Time, sec.: <u>200</u>	L/R : <u>R</u> Shield : <u>N</u>
Finish Depth, ft. : <u>42.0</u>	MSA Interval, ft. : <u>0.5</u>	Log Speed, ft/min.: <u>0.3</u>

Log Run Number : <u>2</u>	Log Run Date : <u>4/12/1995</u>	Logging Engineer: <u>Dave Traub</u>
Start Depth, ft.: <u>42.0</u>	Counting Time, sec.: <u>197</u>	L/R : <u>L</u> Shield : <u>N</u>
Finish Depth, ft. : <u>0.0</u>	MSA Interval, ft. : <u>0.5</u>	Log Speed, ft/min.: <u>0.3</u>

Borehole

50-10-05

Log Event A

Analysis Information

Analyst : P.D. HenwoodData Processing Reference : Data Analysis Manual Ver. 1Analysis Date : 6/29/1995**Analysis Notes :**

This borehole has a 6-in. casing that has had a 4-in. casing placed inside of it. Grout was pumped into the annulus between the casings. The casing thicknesses added together were approximately 7/16 in. The casing correction used for all of the log data was 0.650 in., which may result in reported concentrations slightly higher than actual. The system calibrations do not have a grout correction, making it impossible to determine accurate radionuclide concentrations. As a result, the reported concentrations can only be considered relative to other concentrations in the borehole.

This log was run in a dynamic mode resulting in data collected and averaged over each 1-ft interval. For example, a spectrum was collected beginning at the bottom of the hole at 92 ft and ending at 91 ft. The reported concentration at 91.5 ft represent an average concentration for this 1-ft interval.

Water corrections were made at 83 ft.

Cesium-137 was detected above the MDA from the surface to approximately 28 ft. The concentration ranged from approximately 0.2 to 2.0 pCi/g. The high MDA reported for cesium at 42.5 ft is a result of poor counting statistics at this interval because the spectra was collected for only 24 seconds. Sb-125 was indicated between 51 and 53 ft. However, the activities were below the MDA.

Log Plot Notes:

Separate log plots show the man-made and the naturally occurring radionuclides. The natural radionuclides can be used for lithology interpretations. The headings of the plots identify the specific gamma rays used to calculate the concentrations. Uncertainty bars on the plots show the statistical uncertainties for the measurements as 95-percent confidence intervals. Open circles on the plots give the MDL. The MDL of a radionuclide represents the lowest concentration at which positive identification of a gamma-ray peak is statistically defensible.

A combination plot includes the man-made and natural radionuclides, the total gamma derived from the spectral data, and the Tank Farms gross gamma log. The gross gamma plot displays the latest available digital data. No attempt has been made to adjust the depths of the gross gamma logs to coincide with the SGLS data.